IT Unit 3

Topic 2

# Ch 2, Data Analytics: Drawing Conclusions, Part 1

**Data** (Informatics, p 73 & 82)

1. Define data (p 73).

* Data is unprocessed information, it’s made up of facts and statistics that have no context to them, we can only fully understand and make the data meaningful when we process it into information.

**Primary & secondary data, p 82-91**

1. Distinguish between primary & secondary data. List some strengths and weaknesses of both.

* Data that has not been filtered by interpretation or evaluation is called primary data. This is means it has come straight from the source or from stakeholders, often it is made up of facts collected by the researcher to directly answer a specific question. Secondary data differs from primary data because it has been collected and interpreted by someone other than the researcher.

**Strengths of primary data-**

* Suits your research question exactly
* No mysteries about the source
* No original data has been lost so you can analyse in details

**Strengths of secondary data-**

* Cheap and quick to collect
* Huge amount of data available
* Only way to collect historical data

**Weaknesses of primary data-**

* Time and labour intensive
* Expensive to collect
* Data is scarce compared with researchers backed by universities or companies

**Weaknesses of secondary data-**

* May be partly irrelevant to research question
* Sources and context may be unknown and unknowable
* Potentially inaccurate, biased unrepresentative or even false

**Quantitative and qualitative data, p 85**

1. Distinguish between qualitative & quantitative data. List some strengths and weaknesses of both.

* The easiest way to identify quantitative and qualitative data is to think of them as quantity and quality. Quantitative data is concerned with numbers and measurements. It uses and objective approach, closed questions and can be easily scored. Qualitative data is expressed in words because it is concerned with feelings, personal views and experiences, and opinions. Qualitative data is much more difficult to analyse because it is subjective

**Strengths of Quantitative data-**

* Expressed numerically; easy to analyse and interpret
* Collected in large quantities, improves accuracy
* Can be compared with historical data

**Strengths of Qualitative data-**

* Concerned with opinions, feelings, motives and preferences
* Holistic (total picture) approach
* Can inform policy development

**Weaknesses of Quantitative data-**

* Doesn’t give us reasoning, just figures and numbers
* Usually collects a narrow and sometimes superficial dataset
* Answers will not always reflect how others feel about the issue

**Weaknesses of Qualitative data-**

* Needs to be encoded to be analysed statistically
* Conducted on a small scale
* Subjective

1. How can qualitative data be more easily processed?

* It must be transformed by interpreting it and coding it into a summarised form that will help you to analyse it appropriately.

**Coding qualitative data,** p 86

1. What techniques are used to collect quantitative data?

* Surveys, online forms and online data collection.

1. How do you transform qualitative data into useful information?

* It needs to be transformed by interpreting it and coding it into a summarised form that will help you to analyse it appropriately. This summarised form could be a label, category or simply a number.

**Case Study: Ready Set Go! GYM,** read this case study.

1. What is meant by descriptive coding?

* It’s when it reduces the original wordiness of the statement to a more manageable form using freely chosen summary terms.

1. What is the role of a rubric?

* A detailed list of descriptive grading criteria that correspond with the code (the mark).